

**Supplement to:** A. S. Karyagina, T. M. Grunina, M. S. Poponova, P. A. Orlova, V. N. Manskikh, A. V. Demidenko, N. V. Strukova, M. S. Manukhina, K. E. Nikitin, A. M. Lyaschuk, Z. M. Galushkina, S. A. Cherepushkin, N. B. Polyakov, A. I. Solovyev, V. G. Zhukhovitsky, D. A. Tretyak, I. S. Boksha, A. V. Gromov, and V. G. Lunin, Synthesis in *Escherichia coli* and Characterization of Human Recombinant Erythropoietin with Additional Heparin-Binding Domain (ISSN 0006-2979, Biochemistry (Moscow), 2018, Vol. 83, No. 10, pp. 1207-1221)

**Table S1.**

No.	peptide name	m/z measured	Mr calc.	z	$\Delta$ m/z [ppm]	P	Sequence	Modifications	Range
1	T27	1275.6386	1274.6990	1	-53.05	4	-.MGRNNKQRKK.H	Oxidation: 1	1 - 10
2	T1	2432.2415	2431.3017	1	-27.74	6	M.GRNNKQRKKHKANGSGSGSAPPR.L		2 - 24
3	T28	1180.6368	1179.6949	1	-55.34	4	R.NNKQRKKHK.A		4 - 12
4	T[7-30]+IAA	2607.3409	2606.3572	1	-9.04	5	K.QRKKHKANGSGSGSAPPRLICDSR.V	Carbamidomethyl: 21	7 - 30
5	T[7-30]+IAA+oxH	2623.3226	2622.3521	1	-14.00	5	K.QRKKHKANGSGSGSAPPRLICDSR.V	Carbamidomethyl: 21; Oxidation: 5	7 - 30
6	T[10-30]+IAA+oxH	2211.0515	2210.0974	1	-24.07	3	K.KHKANGSGSGSAPPRLICDSR.V	Carbamidomethyl: 18; Oxidation: 2	10 - 30
7	T29	1578.7774	1577.8386	1	-43.40	3	R.KKHKANGSGSGSAPPR.L		9 - 24
8	T[10-34]+IAA+oxH	2708.3472	2707.3936	1	-19.81	4	K.KHKANGSGSGSAPPRLICDSRVLER.Y	Carbamidomethyl: 18; Oxidation: 2	10 - 34
9	T[13-34]+IAA	2299.1836	2298.1499	1	11.52	2	K.ANGSGSGSAPPRLICDSRVLER.Y	Carbamidomethyl: 15	13 - 34
10	T30	736.3630	735.4167	1	-82.80	0	R.YLLEAK.E		35 - 40
11	T7+2IAA	2803.2123	2802.2436	1	-13.79	0	K.EAENITGCAEHCSLNENITVPDTK.V	Carbamidomethyl: 9, 13	41 - 65
12	T8	927.4129	926.4650	1	-64.04	0	K.VNFYAWK.R		66 - 72
13	T31	1099.5535	1098.5611	1	-13.51	1	K.VNFYAWKR.M	Oxidation: 6	66 - 73
14	T32	3590.6527	3589.8868	1	-67.22	2	K.VNFYAWKRMEVGQQAVEVWQGLALLSEAVLR.G		66 - 96
15	T33	2526.2856	2525.3312	1	-20.93	0	R.MEVGQQAVEVWQGLALLSEAVLR.G		74 - 96
16	T34	2542.3895	2541.3261	1	22.09	0	R.MEVGQQAVEVWQGLALLSEAVLR.G	Oxidation: 11 or Oxidation: 1	75 - 96
17	T15	2359.3677	2358.2332	1	53.94	0	R.GQALLVNSSQPWEPLQLHVDK.A		97 - 117
18	T35	803.4331	802.4913	1	-81.48	0	R.SLTLLR.A		124 - 130
19	T36	2033.9937	2033.0906	1	-51.20	1	R.ALGAQKEAISPPDAASAAPLR.T		131 - 151
20	T37	4548.2875	4547.4765	1	-43.15	6	R.ALGAQKEAISPPDAASAAPLRITADTFRKLFVYSNFLRGK.L		131 - 172
21	T19	1465.8119	1464.7573	1	32.28	0	K.EAISPPDAASAAPLR.T		137 - 151
22	T20	924.4742	923.4712	1	-4.72	0	R.TITADTFR.K		152 - 159
23	T38	1052.5424	1051.5662	1	-29.58	1	R.TITADTFRK.L		152 - 160
24	T39	1314.6593	1313.7244	1	-55.12	1	K.LFRVYSNFLR.G		161 - 170
25	T23	898.3990	897.4709	1	-88.09	0	R.VYSNFLR.G		164 - 170
26	T40	1324.6426	1323.7663	1	-98.91	2	R.VYSNFLRGKLLK.L		164 - 174
27	T[164-182]+IAA	2275.3167	2274.1943	1	50.61	3	R.VYSNFLRGKLLKLYTGEACR.T	Carbamidomethyl: 18	164 - 182
28	T[164-186]+IAA	2704.3751	2703.3915	1	-8.75	4	R.VYSNFLRGKLLKLYTGEACRTGDR.-	Carbamidomethyl: 18	164 - 186
29	T26+IAA	969.4701	968.4386	1	25.02	0	K.LYTGEACR.T	Carbamidomethyl: 7	175 - 182

**Table S2.**

No	Peptide name	m/z meas.	Mr calc.	z	$\Delta$ m/z [ppm]	Number of missed cleavages	Sequence	Modifications	Range
1	T1	2432.1896	2431.3017	1	-49.11	6	M.GRNNKQRKKHKANGSGSGSAPPR.L		2 - 24
2	T2	2550.2807	2549.3357	1	-24.45	5	K.QRKKHKANGSGSGSAPPR.LICDSR.V		7 - 30
3	T3	2566.2743	2565.3306	1	-24.80	5	K.QRKKHKANGSGSGSAPPR.LICDSR.V	Oxidation: 5	7 - 30
4	T4	1450.7360	1449.7437	1	-10.33	2	K.KHKANGSGSGSAPPR.L		10 - 24
5	T5	1615.6958	1614.7494	1	-37.69	0	- . peptides: LICDSR(610 EPO,25-30):27(3)<->LYTGEACR(610 EPO,175-182):181(7) .-		25 - 30
6	T6	2542.3060	2541.2428	1	22.02	0	- . peptides: LICDSRVLER(610 EPO ...,25-34):27(3)<->LYTGEACRTGDR(610 EPO ...,175-186):181(7) .-		25 - 34
7	T7	2687.1215	2687.1920	1	-26.37	0	<b>K.EAENITGCAEHCSLNENITVPDTK.V</b>		41 - 65
8	T8	927.4466	926.4650	1	-27.68	0	K.VNFYAWK.R		66 - 72
9	T9	943.4710	942.4600	1	3.95	0	K.VNFYAWK.R	Oxidation: 6	66 - 72
10	T10	1083.6060	1082.5661	1	30.10	1	K.VNFYAWK.R.M		66 - 73
11	T11	1099.5787	1098.5611	1	9.45	1	K.VNFYAWK.R.M	Oxidation: 6	66 - 73
12	T12	2698.3921	2697.4272	1	-15.72	1	K.RMEVGQQAVEVWQGLALLSEAVLR.G	Oxidation: 2	73 - 96
13	T12	2698.3921	2697.4272	1	-15.72	1	K.RMEVGQQAVEVWQGLALLSEAVLR.G	Oxidation: 12	73 - 96
14	T13	2542.3502	2541.3261	1	6.62	0	R.MEVGQQAVEVWQGLALLSEAVLR.G	Oxidation: 11	74 - 96
15	T13	2542.3502	2541.3261	1	6.62	0	R.MEVGQQAVEVWQGLALLSEAVLR.G	Oxidation: 1	74 - 96
16	T14	2558.2577	2557.3210	1	-27.61	0	R.MEVGQQAVEVWQGLALLSEAVLR.G	Oxidation: 1, 11	74 - 96
17	T15	2359.2541	2358.2332	1	5.78	0	R.GQALLVNSSQPWEPLQLHVDK.A		97 - 117
18	T16	2375.2414	2374.2281	1	2.52	0	R.GQALLVNSSQPWEPLQLHVDK.A	Oxidation: 12	97 - 117
19	T17	2942.3080	2941.5774	1	-94.03	1	R.GQALLVNSSQPWEPLQLHVDKAVSGLR.S		97 - 123
20	T18	2034.0631	2033.0906	1	-17.09	1	R.ALGAQKEAISPPDAASAAPLR.T		131 - 151
21	T19	1465.7157	1464.7573	1	-33.33	0	K.EAISPPDAASAAPLR.T		137 - 151
22	T20	924.4447	923.4712	1	-36.55	0	R.TITADTFR.K		152 - 159
23	T21	1052.6037	1051.5662	1	28.69	1	R.TITADTFR.K.L		152 - 160
24	T22	1314.6234	1313.7244	1	-82.37	1	K.LFRVYSNFLR.G		161 - 170
25	T23	898.4159	897.4709	1	-69.21	0	R.VYSNFLR.G		164 - 170
26	T24	1083.6060	1082.5873	1	10.60	1	R.VYSNFLR.GK.L		164 - 172
27	T25	1153.6277	1152.5961	1	21.08	1	K.LKLYTGEACR.T		173 - 182
28	T26	912.3864	911.4171	1	-41.63	0	K.LYTGEACR.T		175 - 182